

§ 119.510

craft, which have a high degree of subdivision and utilize numerous small buoyancy compartments. Where the probability of flooding of the space is limited to external hull damage, compartment drainage may be omitted provided it can be shown by stability calculations, submitted to the cognizant OCMI, that the safety of the vessel will not be impaired.

§ 119.510 Bilge piping system.

A vessel must be provided with a piping system that meets § 56.50–50 in subchapter F of this chapter, with the following exceptions:

(a) The space forward of the collision bulkhead need not be fitted with a bilge suction line when the arrangement of the vessel is such that ordinary leakage may be removed from this compartment by the use of a hand portable bilge pump or other equipment, and such equipment is provided; and

(b) The vessel need not comply with § 56.50–50(f) in subchapter F of this chapter.

[CGD 85–080, 61 FR 922, Jan. 10, 1996, as amended by CGD 97–057, 62 FR 51047, Sept. 30, 1997]

§ 119.520 Bilge pumps.

(a) Each vessel must be provided with bilge pumps in accordance with § 56.50–55 in subchapter F of this chapter, with the following exceptions:

(1) Note 1 in Table 56.50–55(a) is not applicable and should be disregarded; and

(2) A non-self-propelled vessel must comply with § 56.50–55(a) in subchapter F of this chapter instead of § 56.50–55(b).

(b) In addition to the requirements of paragraph (a) of this section, a vessel of not more than 19.8 meters (65 feet) in length must have a portable hand bilge pump that must be:

(1) Capable of pumping water, but not necessarily simultaneously, from all watertight compartments; and

(2) Provided with suitable suction and discharge hoses capable of reaching the bilges of each watertight compartment, and discharging overboard.

(c) A second power pump is an acceptable alternative to a hand pump if it is supplied by a source independent of the first power bilge pump.

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§ 119.530 Bilge high level alarms.

(a) Each vessel must be provided with a visual and audible alarm at the operating station to indicate a high water level in each of the following normally unmanned spaces:

(1) A space with a through-hull fitting below the deepest load waterline, such as a lazarette;

(2) A machinery space bilge, bilge well, shaft alley bilge, or other spaces subject to flooding from sea water piping within the space; and

(3) A space with a non-watertight closure, such as a space with a non-watertight hatch on the main deck.

(b) A visual indicator must be provided at the operating station to indicate when any automatic bilge pump is operating.

[CGD 85–080, 61 FR 922, Jan. 10, 1996; 61 FR 20556, May 7, 1996]

§ 119.540 Ballast systems.

Solid and water ballast must comply with the requirements of subpart L of part 116 of this subchapter.

Subpart F—Steering Systems

§ 119.600 General.

A self-propelled vessel must meet the applicable requirements for main and auxiliary steering apparatus in subchapters F (Marine Engineering) and J (Electrical Engineering) of this chapter.

Subpart G—Piping Systems

§ 119.700 General.

Materials used in piping systems must meet the requirements of this subpart and be otherwise acceptable to the cognizant OCMI.

§ 119.710 Piping for vital systems.

(a) Vital systems are those systems that are vital to a vessel's survivability and safety. For the purpose of this part the following are vital systems:

- (1) Fuel systems;
- (2) Fire main;
- (3) CO₂ and Halon systems;
- (4) Bilge system;
- (5) Steering system;

(6) Propulsion system and its necessary auxiliaries and controls;

(7) Ship's service and emergency electrical generation system and its necessary auxiliaries; and

(8) A marine engineering system identified by the cognizant OCMI as being crucial to the survival of the vessel or to the protection of the personnel on board.

(b) For the purpose of this part, a system not identified in paragraph (a) of this section is a non-vital system.

(c) Piping used in a vital system must meet §56.60 in subchapter F of this chapter, except that §119.730 of this part replaces §56.60–20 in subchapter F of this chapter.

§ 119.715 Piping subject to more than 1,034 kPa (150 psig) in non-vital systems.

Piping subject to more than 1034 kPa (150 psig) in a non-vital system must be designed, fabricated, and inspected in accordance with the principles of American National Standards Institute (ANSI) B 31.1 "American National Standard Code for Pressure Piping, Power Piping," or other standard specified by the Commandant.

§ 119.720 Nonmetallic piping materials.

Nonmetallic piping materials, including nonmetallic flexible hose assemblies, must meet the requirements of §56.60–25 in subchapter F of this chapter.

§ 119.730 Nonferrous metallic piping materials.

(a) Nonferrous metallic piping materials are acceptable for use in the following:

(1) Non-vital systems;

(2) Aluminum fuel piping on an aluminum hulled vessel, if at least Schedule 80;

(3) Aluminum bilge, ballast, and firemain piping on an aluminum hulled vessel;

(4) If acceptable to the cognizant OCMI, nonferrous metallic piping with a melting temperature above 927° C (1,700° F) may be used in vital systems that are deemed to be galvanically compatible; and

(5) Other uses specifically accepted by the cognizant OCMI.

(b) Where nonferrous metallic material is permitted for use in piping systems by this subpart, the restrictions in this paragraph apply:

(1) Provisions must be made to protect piping systems using aluminum alloys in high risk fire areas due to the low melting point of aluminum alloys;

(2) Provisions must be made to prevent or mitigate the effect of galvanic corrosion due to the relative solution potentials of copper, aluminum, and alloys of copper and aluminum, which are used in conjunction with each other, steel, or other metals and their alloys;

(3) A suitable thread compound must be used in making up threaded joints in aluminum pipe to prevent seizing. Pipe in the annealed temper must not be threaded;

(4) The use of aluminum alloys with a copper content exceeding 0.6 percent is prohibited; and

(5) The use of cast aluminum alloys in hydraulic fluid power systems must be in accordance with the requirements of §58.30–15(f) in subchapter F of this chapter.

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